

SULFIDE BY IDOMETRIC METHOD**SM 4500-S2-2000 (21st Edition)**

Facility Name: _____ VELAP ID: _____

Assessor Name: _____ Analyst Name: _____ Inspection Date: _____

Relevant Aspect of Standards**Method Reference****Y****N****N/A****Comments**

Records Examined: SOP Number/ Revision/ Date _____ Analyst: _____

Sample ID: _____ Date of Sample Preparation: _____ Date of Analysis: _____

Are samples that are collected for the determination of dissolved sulfides treated in the field with aluminum chloride, allowed to settle and flocculate, and the clear supernatant collected for analysis of dissolved sulfide? (Step may be omitted if sample contains no suspended matter.)

4500-S²⁻ B

When samples are pre-treated in the field for the determination of dissolved sulfides, does the chain of custody or other documentation include a record of flocculation step?

2003 NELAC 5.5.7.3

Were 0.0250N standard iodine solutions made by dissolving potassium iodide and iodine in water at rates of 3.2 g iodine/1000 mL water and between 20 and 25 g KI/1000 mL water so that the solution was standardized against 0.0205N Na₂S₂O₃ using starch solution as the indicator?

1.a

Were standard sodium thiosulfate titrants prepared at a rate of 1.5 mL 6N NaOH or 0.4 g solid NaOH and 6.205 g Na₂S₂O₃•5H₂O in 1000 mL distilled water, and were the subsequent solutions standardized with bi-iodate solutions?

1.c

Were starch solutions prepared at a rate of 2 g laboratory-grade soluble starch and 0.2 g salicylic acid in 100 mL hot distilled water?

1.d

Was sulfide stock standard prepared per SM4500S2-A or purchased? If prepared was stock standard standardized by SM4500S2-F?

SM4500S2-A.6.

Notes/Comments:

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Relevant Aspect of Standards	Method Reference	Y	N	N/A	Comments
Was 2 mL of 6N HCl added to aliquots of iodine solution of sufficient volume to keep iodine color after addition of sample, and were 200 mL aliquots of sample then added?	2.a				
Were the combinations of iodine solution and sample then back titrated with sodium thiosulfate solution after the addition of a few drops of starch solution until blue color disappeared?	2.a				
Were calculations done correctly?	3				
When samples are pre-treated in the field (flocculation), is the analysis result reported as Dissolved Sulfide?	2003 NELAC 5.5.10.2.h				
Notes/Comments:					